

WHAT IS CLAIMED IS:

1. A coupon for monitoring cathodic protection, comprising:
a metallic coupon structure on the outer surface of which at least one
type of coating disbondment geometry anticipated on a pipeline is fabricated.
- 5 2. The coupon according to claim 1, wherein said metallic coupon
structure comprises a steel structure coated at least partially with a corrosion
protection coating.
- 10 3. The coupon according to claim 1, wherein the coupon is in a form of a
pipe segment.
- 10 4. The coupon according to claim 3, wherein the disbondments are
formed on an outer diameter of the pipe segment.
- 15 5. The coupon according to claim 1, wherein the coupon is in a form of a
plate.
- 15 6. The coupon according to claim 1, wherein the coupon is formed from a
material selected from the group consisting of pipeline and common grades of carbon
steel.
- 20 7. The coupon according to claim 1, wherein the coupon is formed from a
material selected from the group consisting of ferrous materials, carbon steel, low-
alloy steels, intermediate-alloy steels, stainless steels, nickel, nickel-based alloys,
aluminum, aluminum alloys, copper, copper alloys, titanium, titanium alloys,
zirconium, zirconium alloys, tantalum, and mixtures thereof.
- 25 8. The coupon according to claim 1, wherein the coupon further
comprises a section of plastic piping attached to said metallic structure.
- 25 9. The coupon according to claim 1, wherein the at least one coating
disbondment is fabricated using a coating selected from the group consisting of
pipeline coatings, a shrink sleeve used to repair pipelines or coat welded areas of
pipelines.
- 30 10. The coupon according to claim 1, wherein the at least one coating
disbondment is fabricated using a fusion welded coating.
- 30 11. The coupon according to claim 1, wherein the at least one coating
disbondment is fabricated under overlapping sections of a spirally wound tape coating.
12. The coupon according to claim 1, further comprising at least one
instrument selected from the group consisting of sensors and electrodes, said

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instrument positioned to monitor at least one property of said at least one coating disbondment .

13. The coupon according to claim 12, wherein the instrument is selected from the group consisting of potential sensors, temperature sensors, native potential sensors, and solution chemistry sensors.

5 14. The coupon according to claim 12, comprising a plurality of different instruments.

15. The coupon according to claim 12, wherein the instrument measures at least one of potential and pH in the at least one coating disbondment.

10 16. The coupon according to claim 1, wherein said coating disbondment geometry simulates a plurality of coating disbondments.

17. A method for monitoring cathodic protection, comprising locating a coupon according to claim 1 near a pipeline.

15 18. The method according to claim 17, wherein the coupon and the pipeline are buried underground.

19. The method according to claim 17, wherein the coupon and the pipeline are submersed in liquid.

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